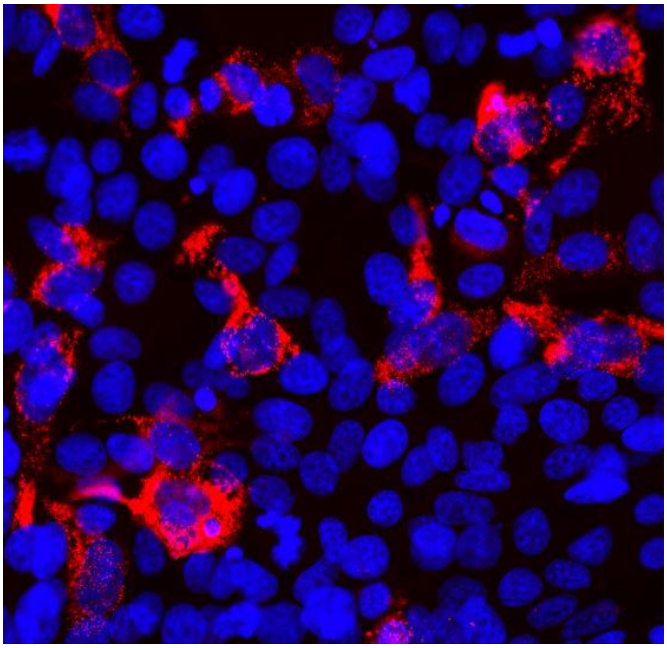
NEUROMICS

SARS-CoV2 S-Protein ACE2 Binding Domain Data Sheet

Catalog Number:	MO22198	**Host:**	Mouse
Product Type:	Mouse Monoclonal IgG	**Species Reactivity:**	Not applicable
Immunogen Sequence:	Recombinant SARS-CoV2 S-Protein ACE2 binding domain expressed in and purified from *E. coli*	**Format:**	Purified antibody at 1mg/mL in 50% PBS, 50% glycerol plus 5mM NaN3
Applications:	Immunofluorescent: 1:3,000-5,000 Immunocytochemistry: 1:3,000-5,000 Western Blot: 1:1,000-2,000		
	Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.		
Storage:	Antibody can also be aliquotted and stored frozen at -20° C in a manual defrost freezer for six months without detectable loss of activity. The antibody is stable at 2° - 8° C for 1 year. Avoid repeated freeze-thaw cycles.		

Application Notes



Description/Data:
In late 2019 a novel infectious disease was discovered in Wuhan, China which was quickly recognized to be caused by a previously unknown RNA coronavirus. The virus was very rapidly isolated, the full RNA sequence determined and put on-line on the 10th of January 2020. The sequence revealed that the virus was most closely related to certain bat coronaviruses and the severe acute respiratory syndrome (SARS) coronavirus. Immediately biotechnology companies and research institutes used the RNA sequence information to generate vaccine candidates. The SARS virus was known to enter and infect human cells by means of the so-called spike or S-protein which binds to the extracellular domain of the angiotensin converting enzyme 2 (ACE2) protein, which is then internalized bringing the virus into the cell. Cryoelectron microscopy and binding studies quickly determined that the S-protein of SARS-CoV2 is structurally similar to to that of the SARS virus and also binds to the ACE2 receptor, albeit with higher affinity than the S-protein of SARS.

FOR RESEARCH USE ONLY

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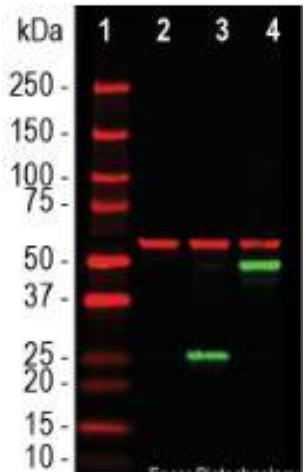
Images: ***Immunofluorescence:*** *Immunofluorescent analysis of HEK293 cells transfected with pCI-Neo-Mod vector (5) including SARS-CoV2-bd cDNA and stained with mouse mAb to SARS-CoV2-bd, MO22198, dilution 1:1,000, in red. The blue is Hoechst staining of nuclear DNA. The antibody reveals expression of SARS-CoV2-bd protein only in transfected cells. DAPI reveals the nuclear DNA of both transfected and non-transfected cells.*

Western Blot: *Western blot analysis of HEK293 cell lysates using mouse mAb to SARS-CoV2-bd protein dilution 1:3,000 in green: [1] protein standard, [2] non-transfected cells, [3] cells transfected with pCI-Neo-Mod containing the SARS-CoV2-bd cDNA, and [4] cells transfected with pCI-Neo-GFP vector expression construct containing containing the SARS-CoV2-bd cDNA.*



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